VAL'FISH, A.Z.; VINOGRADOV, I.M., akademik.

Isolated prime numbers. Dokl.AN SSSR 90 no.5:711-713 Je '53. (MLRA 6:5)

1. Tbilisskiy matematicheskiy institut im. A.M. Razmadze Akademii nauk Gruzinskoy SSR (for Val'fish). 2. Akademiya Nauk SSSR (for Vinogradov).

CHUNIKHIN, S.A.; VINOGRADOV, I.M., akademik.

Embedding and the number of subgroups in P-separable groups. Dokl. AN SSSR 91 no.3:461-462 Jl '53. (MLRA 6:7)

1. Akademiya nauk SSSR (for Vinogradov). (Groups, Theory of)

YAKOVKIN, M.V.; VINOGRADOV, I.M., akademik.

Necessary and sufficient conditions for the reducibility of polynomials. Dokl.AN SSSR 93 no.4:629-631 D '53. (MLRA 6:11)

1. Akademiya nauk SSSR (for Vinogradov). (Polynomials)

Vinogradov, I. M.

USSR.

1-F/W

62

Vinogradov, I. M. Distribution according to a prime modulus of prime numbers with a given value of the Legendre symbol. Izvestiya Akad. Nauk SSSR. Ser. Mat. 18, 105-112 (1954). (Russian)

Let $\psi(s)$ be a periodic function of s with period 1, defined to be $1-\sigma$ if $0\leq s<\sigma$ and to be $-\sigma$ if $\sigma\leq s<1$. Let q be a sufficiently large prime. The paper is concerned with the distribution of the primes $p\leq N$ (where N is sufficiently large) for which the Legendre symbol $(p|q)$ has a given value. The main result is that, for the sum extended over these primes,

$$\sum\psi(ap/q)=O(N^{\epsilon}(N^{5/6}+Nq^{-1/8}+N^{1/2}q^{1/8}))$$

for any fixed $\epsilon>0$, where a denotes any integer $\not\equiv 0 \pmod{q}$. The proof is arithmetical (i.e. without the use of exponential sums), and the method is an extension of that used by the author in a recent paper [same Izvestiya 17, 3-12 (1953); these Rev. 15, 855], from which two lemmas are quoted. An important part in the proof is played by another lemma, similar in its general nature to Lemma 5 of Chapter 9 of the author's paper, Trudy Mat. Inst. Steklov. 23 (1947) [these Rev. 10, 599; see these Rev. 15, 941 for an English translation].

H. Davenport (London).

VINOGRADOV, I. M.

VINOGRADOV, I. M.

1-F/W

62

Vinogradov, I. M. Improvement of asymptotic formulas for the number of lattice points in a region of three dimensions. Izv. Akad. Nauk SSSR. Ser. Mat. 19, 3–10 (1955). (Russian)

In an earlier paper [same Izv. 13, 97–110 (1949); MR 11, 233] the author proved that the error term in the asymptotic formula for $\sum_{m=1}^{N} h(-m)$ is $O(N^{\alpha})$, where

$$\alpha=\frac{7}{10}-\frac{1}{405}+\epsilon$$

for any $\epsilon>0$. [$h(-m)$ denotes the number of classes of primitive quadratic forms of discriminant $-m$.] The same applied to the error in the formula for the number of points with integral coordinates in the sphere $x^2+y^2+z^2\leqq N$. The proof of these results required the use of van der Corput's method. The author now gives a proof of a more exact estimate, with

(over)

VINOGRADOV, I. M.

$$\alpha = \frac{11}{16} + \epsilon.$$

2/2

This could be further slightly improved by applying van der Corput's method, which is not used in the present paper. The proof, like that of the previous result, depends on skilful subdivisions of regions of summation, and applications of the transformation formula for sums of the type $\sum \varphi(x) e^{2\pi i f(x)}$.

H. Davenport (London).

VINOGRADOV, I M.

Karl Fridrih Gauss, on the centenary of his death (1855-1955). Collection of essays under the general [illegible] I M Vinogradov [illegible]

1

SUBJECT USSR/MATHEMATICS/Fourier series CARD 1/2 PG - 504
AUTHOR VINOGRADOV I.M.:
TITLE A special case of the estimations of trigonometric sums.
PERIODICAL Izvestija Akad.Nauk 20, 289-302 (1956)
reviewed 1/1957

The following results are proved: Let $f(x) = A_n x^n + \dots + A_1 x$ be a polynomial with real coefficients of degree $n \geqslant 12$ and $\nu = \frac{1}{n}$. Each of the $A_n, \dots, A_1$ can be expressed as $A_s = \frac{a_s}{q_s} + \frac{\vartheta_s}{q_s \tau_s}$, where $(a_s, q_s) = 1$, $0 < q_s \leq \tau_s$ and $|\vartheta_s| \leq 1$ with $\tau_1 = p^{1/3}$ and $\tau_s = p^{s-1/3+\nu/3}$ for $s > 1$. Let Q be the least common multiple of $q_n, \dots, q_2$ and Q_1 be that of $q_n, \dots, q_1$. Let $S_m = \sum_{x=1}^{p} e^{2\pi i\, mf(x)}$.

Then 1) In the case $Q \geqslant p^{1/3-\nu/3}$, for any integer m satisfying $0 < m \leq p^{0.05\nu(\frac{1}{3} - \frac{\nu}{3})}$ we have $S_m \ll p^{1-\rho}$, $\rho = 1/10n^2 \log 40n^2$; 2) In the case $Q < p^{1/3-\nu/3}$ for $Q_1 > Q$ then $S_1 \ll p^{2/1-\nu/3}$ and for $Q_1 = Q$, then $S_1 \ll pQ^{-\nu+\varepsilon} u_0^{-\nu}$ where $u_0 = \max(u_n, \dots, u_1)$, $u_s = \max(1, |z_s| p^s)$ and $A_s = \frac{a_s}{q_s} + z_s$ for $s = n, \dots, 1$. Let $\tau_s = p^{\frac{1}{2}s}$ for $s = n, \dots, 2$;

Izvestija Akad.Nauk 20, 289-302 (1956) CARD 2/2 PG - 504

and that among the numbers $q_n, \dots, q_2$ there are some not exceeding $p^{0.25}$. We take some q from them and let Q denote the least common multiple of these q. We define $\varkappa$ by $Q = p^{\varkappa}$ for $Q \leq p^{0.25}$ and $\varkappa = 1/4$ for $Q > p^{0.25}$. Then for $l \leq p^{2\varsigma_0}$ we have $S = \sum\limits_{r \leq p} e^{2\pi i l f(r)} \ll p^{1-\varsigma_0+\varepsilon}$, where $\varsigma_0 = \dfrac{\varkappa}{6.7\, n^2 \log 12n^2}$. Further let $\tau_s = p^{0.55}$ for $s = n, \dots, 1$ and that the least common multiple Q of $q_n, \dots, q_2 \leq p^{1/9}$, then for $0 < l \leq p^{2\varrho_0}$ we have $\sum\limits_{r \leq p} e^{2\pi i l f(r)} \ll p^{1-\varsigma+\varepsilon_0}$, where $Q_1 = p^{\varkappa_1}$, $\varrho = \min\left(\dfrac{\varkappa_1}{6.75\, n^2 \log 12n^2}, \dfrac{1}{27n^2 \log 108n^2} \right)$.

VINOGRADOV, I.M., akademik.

Results of the All-Union Mathematical Congress. Vest. AN SSSR
26 no.9:3-7 S '56. (MLRA 9:11)
(Mathematics--Congresses)

VINOGRADOV, I.M., akademik.

New successes of Soviet mathematicians; results of the Third All-Union Mathematical Congress. Priroda 45 no.12:68-69 D '56. (MLRA 10:2)
(Mathematics--Congresses)

Vinogradov, I.M.

SUBJECT	USSR/MATHEMATICS/Number theory	CARD 1/4	PG - 905
AUTHOR	VINOGRADOV I.M.		
TITLE	Trigonometric sums containing polynomial values.		
PERIODICAL	Izvestija Akad.Nauk 21, 145-170 (1957) reviewed 7/1957		

In the present paper the author improves essentially the estimations of the sums

$$(1)\qquad \sum_{p\le P} e^{2\pi i k f(p)}, \qquad f(p)=A_np^n+\dots+A_1p$$

k - positive, integral, p - prime number, which he has given in several earlier papers (Izvestija Akad.Nauk 12, 225-248 (1948); ibid. 20, 289-302 (1956); Trudy mat.Inst.Akad.Nauk 23, (1947); Izvastija Akad.Nauk 15, 109-130 (1951)).

Theorem 1: The points of the n-dimensional space are divided into two classes. To the first class there belong the points

$$(2)\qquad \left(\frac{a_n}{q_n}+z_n,\dots\dots,\frac{a_1}{q_1}+z_1\right),$$

Izvestija Akad.Nauk 21, 145-170 (1957) CARD 2/4 PG - 905

where the first summands are rational fractions and $(a_k, q_k) = 1$, $q_k > 0$ $(k=1,\dots,n)$; let the smallest common multiple Q of $q_1,\dots,q_n$ satisfy the condition

(3) $$Q \leq P^{1/3-\nu/6} .$$

For the second summand holds

(4) $$|z_s| \leq P^{-s+\nu} \qquad (s=n,\dots,1).$$

To the second class there belong all points which do not belong to the first class. Let now

(5) $$S = \sum_{x=1}^{P} e^{2\pi i k f(x)}, \qquad \varrho = \frac{1}{8n^2 \ln 36n^2}$$ (the index x runs through all natural numbers up to P).

If $(A_n,\dots,A_1)$ belongs to the second class and $k \leq P^{2\varrho}$, then

$$|S| \leq (8n)^{0,5n \ln 36n^2} P^{1-\varrho} .$$

If $(A_n,\dots,A_1)$ belongs to the first class and $k \leq P^{\nu}$, then

Izvestija Akad.Nauk 21, 145-170 (1957) CARD 3/4 PQ - 905

$$S = \frac{1}{Q} \sum_{x=1}^{Q} e^{2\pi i\left(\frac{ka_n}{q_n} x^n + \dots + \frac{ka_1}{q_1} x\right)} \int_0^P e^{2\pi i(kz_n x^n + \dots + kz_1 x)} dx + \theta\, 2n^{2n} P^{2/3} .$$

Theorem 1a: In the theorem 1 let instead of (3):

(3)' $Q \leq P^{\nu}$

and instead of (4):

(4)' $|z_s| \leq P^{-s+\nu} Q^{-1}$.

Beside of (5) let $u_0 = \max(|z_n| P^n, \dots, |z_1| P)$.

If $(A_n, \dots, A_1)$ belongs to the second class and $k \leq P^{2\varrho}$, then $S \ll P^{1-\varrho}$.

If $(A_n, \dots, A_1)$ belongs to the first class and $k \leq P^{\nu^2}$ and $u_0 > 1$, then $S \ll PQ^{-\nu+\varepsilon} u_0^{-\nu}$, but if $k \leq P^{\nu^2}$ and $u_0 \leq 1$, then $S \ll PQ^{-\nu+\varepsilon}(k,Q)^{\nu}$ is valid.

Theorem2: The points of the n-dimensional space are distributed into two classes as above, where (3)' and (4) are valid. If $(A_n,\dots,A_1)$ belongs to the second class and

(6) $\varrho = \frac{1}{62n^2 \ln 12n^2}$, $k \leq P^2$, $S = \sum_{p \leq P} e^{2\pi i k f(p)}$ (the index p runs through all prime numbers below P),

then we have $S \ll P^{1-\varrho}$.
If $(A_n,\dots,A_1)$ belongs to the first class, S denotes the value of (6) and $k \leq Q^{\nu}$, then

$$S \ll P^{1+\varepsilon} (k,Q)^{0,5\nu} Q^{-0,5\nu} .$$

In these theorems be: $\varepsilon > 0$ arbitrarily small; $|\theta| \leq 1$; $A \ll B$, $B > 0$ means that $|A| \leq cB$, $c > 0$ constant; p - variable which runs through the prime numbers, $k > 0$ integral, $P > 0$ integral, $n \geq 12$, integral; $\nu = n^{-1}$, A_k - real.

The proof of the theorems base on sixteen lemmas 6 of which are new. An improvement of the still very rough estimation in theorem 2 for points of the first class with $Q \leq P^{\varepsilon}$ will be given in another paper.

VINOGRADOV, I. M.

"Some Refinements of the Method of Estimating Trigonometric Sums."

Paper submitted Intl. Cong. Mathematicians, Edinburg 14 - 21 Aug 1958.

VINOGRADOV, I M

38-22-1-1/6

AUTHOR: Vinogradov, I.M.

TITLE: A Special Case of the Estimation of Trigonometric Sums With Prime Numbers (Osobyy sluchay otsenki trigonometricheskikh summ s prostymi chislami)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Matematicheskaya, 1958, Vol 22 Nr 1, pp 3-14 (USSR)

ABSTRACT: The estimation of the sum

$$\sum_{p\leqslant P} e^{2\pi ikf(p)}, \quad f(x)=A_nx^n+\ldots+A_1x$$

formerly given by the author [Ref 1] gives bad results for $Q\leqslant P^{\nu}$. In the present paper this estimation is improved. Let c be a positive constant, ε a small positive constant, $|\theta|<1$, p is assumed to run through the prime numbers, k a positive integer, P an integer, $P\geqslant c_0$, c_0 sufficiently large, n a positive integer, $n\geqslant 12$, $\nu = n^{-1}$, A_i real, $q_n,\ldots,q_1$ positive, the least common multiple of the q_i is denoted by Q, the number of the prime numbers $<x$ is denoted by $\pi(x)$.

Card 1/3

A Special Case of the Estimation of Trigonometric Sums With Prime Numbers 38-22-1-1/6

Theorem: For all s, s = 1,...,n, let be

$$A_s = \frac{a_s}{q_s} + \frac{\delta_s}{P^s}, \quad (a_s,q_s) = 1, \quad 0 < q_s, \quad |\delta_s| \leqslant P^{\nu}$$

where $Q \leqslant P^{\nu}$. Let $T(\sigma)$ be the number of the fractions of the form $\{f(p)\}$, $p \leqslant P$, with the condition $0 \leqslant \{f(p)\} < \sigma$, $0 < \sigma \leqslant 1$. For $T(\sigma)$ it holds

$$T(\sigma) = \sigma\pi(P) + O(\Delta)$$

(O independent of σ). If it is put $H = e^{\sqrt{\ln P}}$, then one can take $\Delta = P(\ln P)^3 Q^{-0,5\nu+\varepsilon}$ in the case $Q < H$ and $\Delta = P e^{20(\ln \ln P^2)} Q^{0,5\nu+\varepsilon}$ in the inverse case. If however it is $|\delta_{s'}| \geqslant 1$ for at least one $s = s'$, then one can take

$$\Delta = P(\ln P)^3 Q^{-0,5\nu+\varepsilon} |\delta_{s'}|^{-0,5\nu}$$ in the case $Q < H$, $|\delta_{s'}| \leqslant H$

Card 2/3

A Special Case of the Estimation of Trigonometric Sums With Prime Numbers

38-22-1-1/6

$$\Delta = P\, e^{20(\ln \ln P)^2}\, Q^{-0,5\nu+\varepsilon} |\delta_{s'}|^{-0,5\nu}$$ in the inverse case.

3 theorems and 8 lemmata are presented on the whole. There are 2 Soviet references.

SUBMITTED: September 20,1957

AVAILABLE: Library of Congress

1. Integral equations 2. Trigonometry

Card 3/3

AUTHOR: Vinogradov, I.M. 38-22-2-1/8

TITLE: New Estimation of the Function $\zeta(1 + i\,t)$
(Novaya otsenka funktsii $\zeta(1 + i\,t)$)

PERIODICAL: **Izvestiya Akademii nauk SSSR, Seriya Matematicheskaya**, 1958, Vol 22, Nr 2, pp 161-164 (USSR)

ABSTRACT: The present paper gives a more precise form of the results and their proof announced in [Ref 1]. By the example of the estimation of a special trigonometric sum a modification of the author's estimation method is demonstrated.
Let be : n integer $\geqslant 7$, $n_0 = 8\,n$, a integer $\geqslant e^{5000\,n_0^2}$,
$X = \left[a^{\frac{3}{4}}\right]$, $t = a^{n-\theta}$, $0 < \theta \leqslant 1$. The variable x is assumed to run through the values 1,...,X.
Theorem: Let a_1 be integer, $a < a_1 \leqslant 2a$; $S = \sum\limits_{a < x \leqslant a_1} e^{2\pi i f(x)}$,
$f(x) = \frac{-t \ln x}{2\pi}$. Then it is

$$|S| < 1{,}04\; a^{1-\varrho} \;, \quad \varrho = \frac{1}{653000\,n_0^2}$$

Card 1/2

New Estimation of the Function $\zeta(1 + i t)$

38-22-2-1/8

From the theorem it follows

1. $\zeta(1 + it) = 0((\ln t)^{2/3})$

2. $\zeta(\sigma + it)$ possesses no zeros for $\sigma \geqslant 1 - \frac{A}{(\ln t)^{2/3}}$,

where A is positive integer.

3. $\pi(x) = \int_2^x \frac{dx}{x} + 0(x e^{-\alpha(\ln x)^{0,6}})$, where α is positive integer, There are 8 references, 5 of which are Soviet, 2 English, and 1 American.

ASSOCIATION: Matematicheskiy institut imeni V.A.Steklova, Akademii nauk SSSR (Mathematical Institute imeni V.A. Stéklov, Academy of Sciences, USSR)

SUBMITTED: November 4, 1957

AVAILABLE: Library of Congress

1. Functions--Theory

Card 2/2

AUTHOR: Vinogradov, I.M. SOV/38-22-5-1/10

TITLE: On a Multiple Integral (Ob odnom kratnom integrale)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1958, Vol 22, Nr 5, pp 577-584 (USSR)

ABSTRACT: Let n be integral and $\geqslant 4$, $\nu = \frac{1}{n}$, l be positive integral,

$p_0^{(1-\nu)^l} \geqslant (4n^2)^n$, $b = \left[nl + \frac{n(n+1)}{4} + 1\right]$, $f(x) = \alpha_n x^n + \ldots + \alpha_1 x$,

$T_0 = \sum\limits_{0<x<p_0} e^{2\pi i f(x)}$; Let x run through an arbitrary increasing sequence of integers with the given boundaries. Then it holds:

$$\int_0^1 \cdots \int_0^1 |T_0|^{2b} d\alpha_n \ldots d\alpha_1 < 2^{2bl+2,5n^2l-nl^2} n^{n^2l} p_0^{2b-\frac{n(n+1)}{2}+\frac{n(n+1)}{2}(1-\nu)^l}.$$

There are 3 references, 2 of which are Soviet, and 1 American.

SUBMITTED: July 9, 1958

Card 1/1

20-118-4-1/61

AUTHOR: Vinogradov, I.M., Academician

TITLE: On the Function $\zeta(s)$ SSSR [O funktsii $\zeta(s)$]

PERIODICAL: Doklady Akademii Nauk/ 1958, Vol 118, Nr 4, pp 631 (USSR)

ABSTRACT: The following estimate is valid:

$$\zeta(1+it) = 0\left[(\ln t \ln \ln t)^{2/3}\right]$$

($t \geqslant t_0$, t_0 - sufficiently large constant >1). This new estimate leads to an improvement of a number of results on the distribution of prime numbers.

ASSOCIATION: Matematicheskiy institut imeni V.A.Steklova Akademii nauk SSSR (Mathematical Institute imeni V.A.Steklov, Academy of Sciences, USSR)

SUBMITTED: October 31, 1957

AVAILABLE: Library of Congress

Card 1/1

GAUSS, Karl Fridrikh [Gauss, Karl Friedrich];[deceased]; DEM'YANOV, V.B. kand.fiz.-matem.nauk [translator]; VINOGRADOV, I.M., akademik, obshchiy red.; PETROVSKIY, I.G., akademik, red.; KUZNETSOV, I.V., kand.filos.nauk, red.; ANDREYEV, N.N., akademik, red.; KAZANSKIY, B.A., akademik, red.; SHCHERBAKOV, D.I., akademik, red.; YUDIN, P.F., akademik, red.; DELONE, B.N., red.; KOSHTOYANTS, Kh.S., red.; SAMARIN, A.M., red.; LEBEDEV, D.M., prof., red.; FIGUROVSKIY, N.A., prof., red.; RYVKIN, A.Z., red.izd-va; MAKOGONOVA, I.A., tekhn.red.

[Works pertaining to the theory of numbers] Trudy po teorii chisel. Obshchaia red. I.M.Vinogradova. Kommentarii B.N.Delone. Moskva, Izd-vo Akad.nauk SSSR, 1959. 978 p. (MIRA 13:2)

1. Chleny-korrespondenty AN SSSR (for Delone, Koshtoyants, Samarin).

(Numbers, Theory of)

16(1)

AUTHOR: Vinogradov, I.M. SOV/38-23-2-1/10

TITLE: Estimation of a Trigonometric Sum Over Prime Numbers (Otsenka odnoy trigonometricheskoy summy po prostym chislam)

PERIODICAL: Izvestiya Akademii nauk SSSR,Seriya matematicheskaya,1959, Vol 23,Nr 2,pp 157-164 (USSR)

ABSTRACT: Theorem : Let $P \geqslant 8$, α constant , $\alpha \geqslant 6$, $(\alpha) = 3^{-\alpha}$, $f(x) = A x^{\alpha}$, $1 \leqslant A \leqslant P^{\alpha}$ and

$$S = \sum_{p \leqslant P} e^{2\pi i\, f(p)} ,$$

where p runs through the prime numbers. Then it is

$$S \ll P^{1-\rho} , \qquad \rho = \frac{1}{34\,000\,000\, \alpha^2}$$

The theorem is proved with the aid of five lemmata which represent a modification of the method decribed in /Ref 1/ by

Card 1/2

the author (see also the contribution of the author at the Edinburgh congress in 1958).
There are 3 Soviet references.

ASSOCIATION: Matematicheskiy institut imeni V.A. Steklova AN SSSR (Mathematical Institute imeni V.A. Steklov AS USSR)

SUBMITTED: February 2, 1959

05697

16(1) SOV/38-23-5-1/8

AUTHOR: Vinogradov, I.M.

TITLE: On the Question of the Upper Bound for G(n)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1959, Vol 23, Nr 5, pp 637-642 (USSR)

ABSTRACT: Let G(n) denote the smallest positive integer k_1 to which there corresponds a positive c_0 so that the equation

$$N = x_1^n + \dots + x_{k_1}^n$$

is solvable for every integer $N > c_0$ by nonnegative integers $x_1, \dots, x_{k_1}$.

In [Ref 1] the author showed that

$$G(n) < 3n \ln n + 11n .$$

In the present paper he obtains the more exact inequality

$$G(n) < 2n \ln n + \phi(n)$$

05697
SOV/38-23-5-1/8

On the Question of the Upper Bound for G(n)

(for sufficiently large n), where for $n \to \infty$ the order of $\phi(n)$ is smaller than the order of $n \ln n$. The proof is based on the ideas of /"Ref 2_7.
There are 3 Soviet references.

ASSOCIATION: Matematicheskiy institut imeni V.A. Steklova Akademii nauk SSSR (Mathematical Institute imeni V.A. Steklov AS USSR)

SUBMITTED: June 17, 1959

Card 2/2

VINOGRADOV, I.M.

Number of lattice points in a given domain. Izv. AN SSSR. Ser. mat. 24 no. 6:777-786 N-D '60. (MIRA 14:1)
(Numbers, Theory of) (Lattice theory)

VINOGRADOV, I.M.

Distribution of the fractional parts of polynomials. Izv. AN SSSR. Ser. mat. 25 no.6:749-754 N-D '61. (MIRA 14:11)
(Polynomials)

VINOGRADOV, I.M.

On the distribution of systems of fractional parts of values of several polynomials. Izv.AN SSR.Ser.mat. 26 no.6:793-796 N-D '62. (MIRA 15:12)

(Polynomials)

VINOGRADOV, Ivan Matveyevich; MOROZOVA, I.Ye., red.

[Fundamentals of the theory of numbers] Osnovy teorii
chisel. Izd.7., ispr. Moskva, Nauka, 1965. 172 p.
(MIRA 18:7)

VINOGRADOV, I.M.

Estimation of trigonometric sums. Izv. AN SSSR. Ser. mat. 29 no.3:493-504 '65. (MIRA 18:6)

VINOGRADOV, I.M.

Number of integral points in a sphere. Izv. AN SSSR. Ser. mat. 27 no.5:957-968 S-O '63. (MIRA 16:11)

VINOGRADOV, I.M.

Number of integral points in a three-dimensional space. Izv.AN SSSR.Ser.mat. 27 no.1:3-8 Ja-F '63. (MIRA 16:2)
(Numbers, Theory of)

VINOGRADOV, I. N.

"Vibration Method of Investigating the Stresses in a Steel Strip in Cold Rolling Mills." Cand Tech Sci, Central Sci Res Inst of Technology and Machine Building (TsNIITMash), Min Transport and Heavy Machine Building USSR, Moscow, 1953. (KL, No 10, Mar 55)

SO: Sum. No. 670, 29 Sep55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

VINOGRADOV, I. M.

Dissertation: "Investigation of the Effect of a Type of Stress Deviator on the Plastic Deformation of Metals." Cand Tech Sci, Leningrad Polytechnic Inst, Leningrad, 1953. (Referativnyy Zhurnal--Mekhanika, Moscow, Apr 54)

SO: SUM 243, 19 Oct 1954

VINOGRADOV, I.

USSR

Influence of the character of the deviator stress on the resistance of metals to plastic deformation. Yu. I. Yagn and I. N. Vinogradov (M. I. Kalinin Polytech. Inst., Leningrad). *Doklady Akad. Nauk S.S.S.R.* 96, 513-17 (1954).—Studies were made of plastic deformation under complex stresses; a correction to the effective stress, σ_i, was found that gave a single curve of stress function vs. effective strain, ϵ_i, for all the stress states investigated. The stress states were described by G. I. Taylor's parameter, μ, which is related to the deviator stress, and by the ratio $K = \sigma/\sigma_i$, where σ is the av. normal stress. Curves of σ_i vs. ϵ_i were shown for Be bronze, BBr2, quenched in H_2O from 840°, for the following combinations of μ and K: +1, −0.333; −1, +0.333; −1, −0.667; −1, −1; −1, −1.5; −1, −2; 0, −1; −0.25, −1; −0.75, −1; −0.6, −1. For changes either in μ or in K the curves were found to vary; at $\epsilon_i = 50\%$ the variation in σ_i was about 10-15%. All of the curves were reduced almost to a single curve by substituting for σ_i the function $(\sigma_i)_e = \sigma_i + A\sigma + B(1 - \cos 2\pi\mu)$, where $A = 0.0415 + 0.0347\epsilon_i$ and $B = 5.45 + 0.0136\sigma$. A and B were also pos. for tests on pure Fe. For the tests on Be bronze and on Fe the relation between ν, the strain parameter, and μ was approx. $\nu = \mu - (\alpha + \beta K) \sin \pi\mu$, where α and β were const. coeffs. For tests on Al bronze BrAZhMts 10-3-1.5 that had been H_2O quenched from 980°, A and B were negl. and α and β were zero.

A. G. Guy

Evaluation B-82533, 2 Feb 55

2

Cross-Shaped Reverser for Testing Materials for Two-Sided Compression [illegible]

[illegible]

VINOGRADOV, I.N.; YAGN, Yu.I.

Laws of plasticity. Fiz.met.i metalloved. 3 no.1:127-134 '56.
(MLRA 9:11)

1. Leningradskiy politekhnicheskiy institut imeni M.I. Kalinina.
(Plasticity) (Metals--Testing)

Vinogradov Y M

ACC NR: AP6035934 SOURCE CODE: UR/0413/66/000/020/0196/0197

INVENTOR: Vinogradov, I. N.; Andreyev, V. M.; Vinogradov, R. I.

ORG: none

TITLE: Flapping-wing motorcycle [Engine-powered ornithopter mounted on a motorcycle frame]. Class 62, No. 187533

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 196-197

TOPIC TAGS: xxxxxxxx, STOL aircraft, research aircraft, unconventional aircraft, ornithopter

ABSTRACT: An Author Certificate has been issued for an engine-powered ornithopter resembling a monoplane equipped with a folded flapping wing with feather-like blades on the tips. The wings are mounted on the frame of a motorcycle together with a horizontal tail unit, control vanes, a drive, and a system of mechanisms for effecting their flapping motion. To increase wing efficiency, between the feather-like blades' drive gear and longerons is a mechanism for automatically changing the blades' angle of attack; this mechanism consists of a support (articulately attached to the first section of the wing and connected by a pull rod with a lever on the drive shaft) and a round deflecting balancer (attached to the traverse of the end rib of the second section of the wing and attached to the support through a ball, and

Card 1/2 UDC: 629.135/138

ACC NR: AP6035934

the other end is connected with to the crank of the second wing section, which is connected by pull rods with the longerons of the feather-like blades). In order to free the drive mechanism of the wing's natural vibrations, a compensating cross-piece suspension is used, which is connected by a pull rod with the drive-mechanism cam; at the other end it is connected to a cantilever of the first section of the wing. Orig. art. has: 1 figure.

SUB CODE: 01/ SUBM DATE: 30Dec64

KELESH'YAN, N.M.; VINOGRADOV, I.N.

Making use of aluminum alloy slags for the manufacture of abrasive powders. TSvet.met. 38 no.7:93-94 Jl '65. (MIRA 18:8)

SOV/146-58-4-18/22

18(7), 28(2)

AUTHOR: Vinogradov, I.N., Candidate of Technical Sciences

TITLE: A Vibratory Apparatus Measuring Stress in Metal Strips in Cold Rolling Mills

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Priborostroyeniye, 1958, Nr4, pp 117-126 (USSR)

ABSTRACT: An objective transducer of the stress of the metal strip in cold rolling mills is needed for a long time. The stress of the metal strip being rolled in a rolling mill train, connecting the individual rollers, is the only direct and objective criterion for the correct rolling speed. The proper stress is mandatory for quality rolling of metal strips. Contemporary instruments measuring this stress and functioning as regulators, do not meet all the requirements of cold rolling. In 1950, the Leningradskiy proyektno-eksperimental'noye otdeleniye GPI "TPEP" (Leningrad Projecting and Experimental Department of GPI "TPEP") began the investigation of possible solutions of this problem. This work was continued with interruptions until to

Card 1/6

SOV/146-58-4-18/22

A Vibratory Apparatus Measuring Stress in Metal Strips in Cold Rolling Mills

the middle of 1952, when laboratory investigations of a vibratory transducer of stresses in strip metal were completed. In the beginning of 1955, an experimental model of the stress measuring apparatus was produced with the aid of TsNIITMASh and was tested in the rolling mill laboratory of the latter. "As a measuring apparatus the experimental model of the device was used on steel strips of 70 x 0.3 mm and 220 x 0.2 mm and indicated the stress in the strip material within the range of 2 to 40 kg/mm^2, which corresponds to the given technical specifications. The stability of the measuring device was tested by subjecting it to sudden impacts of strip pulls changing the stress 2-3 times. The following-up on stress oscillations in the strip was not disturbed. The device was not tested as a regulator. However, the measurements showed that the time constant of the apparatus will be within the limits of 0.05 - 0.10 seconds, if the device is used as regulator." The text presented in quotation marks

Card 2/6

SOV/146-58-4-18/22

A Vibratory Apparatus Measuring Stress in Metal Strips in Cold Rolling Mills

was taken from the test records of the device in April 1955, signed besides the author by the representatives of TsNIITMASh, N.N. Druzhinin and A.S. Filatov. Presently, the author of this paper works on the simplification of the experimental model at LETI imeni V.I. Ul'yanova (Lenina). He presents the theoretical premises of the physical parameters of a vibrating strip and the selection of the vibratory system. Each natural oscillation frequency of some fixed section of the strained strip corresponds to a certain stress in a section of the strip. If forced oscillations of a known and controllable frequency are transmitted to this section of the strip, a sudden resonance increase of the oscillation amplitude will be observed when the two frequencies are close to each other. In this way the frequency of natural oscillations may be used as a criterion of the stress in the strip material, as indicated in Author's Certificate Nr 91165 of I.V. Vinogradov. The author

Card 3/6

SOV/146-58-4-18/22

A Vibratory Apparatus Measuring Stress in Metal Strips in Cold Rolling Mills

considers briefly an electromagnetic vibrator which was first investigated, but which is suitable only for steel strips. For non-ferrous metal strips, this type of vibrator could not be used. In the latter case a mechanical vibrator produced the required results. Figure 1 shows a diagram of this vibrator which consists basically of a ball bearing which is mounted eccentrically on a shaft. This vibrator must develop a high number of revolutions per minute for obtaining the resonance frequency. In the experimental device the speed of the vibrator was 22,400 rpm. Recently, attempts were made in designing a magnetostriction vibrator fed by a tube generator with adjustable frequency. The author states that there is all reason to hope for the successful termination of this work. Further, the author discusses the selection of transducer circuits and possible electrical circuits. He considers inductance and capacitance transducers. Based on the theoretical premises explained in this

Card 4/6

paper, another experimental model of the stress measuring apparatus was tested. Figure 2 shows a photograph of the position of the mechanical part of this device on a rolling mill in the rolling mill laboratory of TsNIITMASh. Figure 3 shows the principle of functioning of this device. The electrical system maintains constant resonance using two pick-ups and one common vibrator. The resonance is kept constant by increasing or reducing the rpm of the vibrator drive motor according to the stress. A tachometric transducer registers the rpm of the motor and may serve as a stress indicator. If the device is used as a regulator, then the resonance is maintained by adjusting the drives of the reeler or the rolling mill stands. For adjusting the device the author designed a special stand but which was not built, Author's Certificate Nr 91158, I.N. Vinogradov. The author considers the functioning of the device. Different requirements will appear depending upon its operation

A Vibratory Apparatus Measuring Stress in Metal Strips in Cold Rolling Mills SOV/146-58-4-18/22

as a measuring or a control device. Finally, the author states in his conclusions that it is necessary to complete the development of the magnetostriction vibrator, which provides a reduction of the base of the apparatus and simplifies the circuits and the design. It is necessary to manufacture industrial models of this device. There are 1 photograph, 3 diagrams and 2 graphs.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut imeni V. I. Ul'yanova (Lenina) (Leningrad Electrical Engineering Institute imeni V.I. Ul'yanov (Lenin))

SUBMITTED: September 21, 1957

Card 6/6

BASHARIN, A.V., doktor tekhn. nauk, prof.; VINOGRADOV, I.N., kand. tekhn. nauk;
BYCHKOV, A.I., kand. tekhn.nauk; BYVAL'KEVICH, I.B., inzh.

Generator-motor type electric drive equipped with rotating and magnetic amplifiers. Elektrichestvo no.11:51-55 N '58.
(MIRA 11:12)

1. Leningradskiy elektrotekhnicheskiy institut im. V.I. Ul'yanova (Lenina).
(Electric driving) (Rotating amplifiers) (Magnetic amplifiers)

SOV/84-58-4-4/48

AUTHOR: Vinogradov, I.N.

TITLE: First Time over Red Square (Vpervyye nad Krasnoy ploshchad'yu)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 4, pp 4-5 (USSR)

ABSTRACT: The author, a veteran flyer, relates his reminiscences of the beginnings of aviation during the first years of Bolshevist rule. The article is accompanied by a photograph showing I.N. Vinogradov with a model of an aircraft with flapping wings of his own design.

1. Aviation--USSR 2. Pilots--Performance

Card 1/1

VINOGRADOV, Ivan Nikolayevich, kand.tekhn.nauk, prepodavatel'

Contactless drive-control circuit using the generator-motor system. Izv.vys.ucheb.zav.; elektromekh. 1 no.7:112-119 '58.
(MIRA 11:11)

1. Kafedra elektrifikatsii promyshlennykh predpriyatii Leningradskogo elektrotekhnicheskogo instituta.
(Electric driving) (Automatic control)

8(5) SOV/105-58-11-12/28

AUTHORS: Basharin, A. V., Professor, Doctor of Technical Sciences, Vinogradov, I. N., Candidate of Technical Sciences, Bychkov, A. I. Candidate of Technical Sciences, Byval'kevich, I. B., Engineer

TITLE: Motor-Generator Drive With Amplidyne and Magnetic Amplifier (Elektroprivod po sisteme generator-dvigatel' s elektromashinnym i magnitnym usilitelyami)

PERIODICAL: Elektrichestvo, 1958, Nr 11, pp 51 - 55 (USSR)

ABSTRACT: This is a description of an electric drive system developed at the kafedra elektrifikatsii promyshlennykh predpriyatiy Leningradskogo elektrotekhnicheskogo instituta imeni V.I.Ul'yanova (Lenina)(Chair of Electrification of Industrial Enterprises at the Leningrad Institute of Electrical Engineering imeni V.I.Ul'yanov (Lenin)) by order of the Uralmashzavod. The system is based upon a utilization of magnetic amplifiers and of symmetrical non-linear ceramic semiconductor resistances, which were developed under the supervision of N.P.Bogoroditskiy (Ref 4). The

Card 1/3

Motor-Generator Drive With Amplidyne and Magnetic Amplifier

SOV/105-58-11-12/28

main problem was the creation of an automatically controlled electric drive system, the qualitative service factors of which are not below those of the power system (Ref 1), which, however, is capable of controlling starting, reversing and braking operation without contact elements. This paper includes an illustration of the circuit diagram of the electric drive. This system is capable of automatic and manual control. The system was tested with a sufficiently powerful model. The different modes of operation, starting, braking and reversing, are described. In order to compute the transients in this system a graphic method developed in the LETI (Ref 5) was used. The calculated and the experimental characteristic curves for the transient processes from motor starting to maximum speed showed a satisfactory agreement. The system is distinguished from others by good qualitative service factors and good static and dynamic characteristics. The circuit diagram is simple, it incorporates only a minimum of contacts and it

Card 2/3

Motor-Generator Drive With Amplidyne and Magnetic Amplifier SOV/105-58-11-12/28

guarantees a reliable braking without "creeping speeds". There are 8 figures and 5 Soviet references.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut imeni V.I. Ul'yanova (Lenina) (Leningrad Institute of Electrical Engineering imeni V.I.Ul'yanov (Lenin)

SUBMITTED: May 29, 1958

Card 3/3

SOV/144-58-7-12/15

AUTHOR: Vinogradov, Ivan Nikolayevich, Cand.Tech.Sci., Lecturer

TITLE: A Contactless Control Circuit for a Drive on the Generator-motor System (Beskontaktnaya skhema upravleniya privodom po sisteme generator-dvigatel')

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1958, Nr 7, pp 112-119 (USSR)

ABSTRACT: The object of the work is to improve the reliability of automatic control circuits for reversing drives that are operated frequently as, for example, those driving manipulators and rolls in rolling mills. A circuit due to V.I. Arkhangel'skiy is becoming popular for the control of such mechanisms. It has numerous advantages but its weak point is that it uses contact devices such as contactors and relays. According to an article by K.I. Kozhevnikov, the current/time curve of the motor should not be made to approach a rectangular shape, as the best tachogram of a motor is a parabola which corresponds to a triangular current diagram.
L.V. Karnyushin has shown the advantages of a trapezoidal tachogram such as is assumed best in the present work. In any case it is important to cut down

Card 1/6

SOV/144-58-7-12/15

A Contactless Control Circuit for a Drive on the Generator-motor System

the number of operating contacts whatever the shape of the tachogram. At the request of the Uralmash works, the Leningrad Electro-technical Institute developed a control circuit without contacts in the operating part of the circuit, though as will be seen from the circuit diagram given in Fig 1 contacts are still used for protective equipment and interlocks. The contactless circuit described is based on the use of a magnetic amplifier and non-linear resistances, the characteristics of which are given. A graph of the relationship between the current in the load circuit of the magnetic amplifier and the controlling amp turns is given in Fig 2. The non-linear resistance was developed in the Leningrad Electro-Technical Institute and is based on calcium carbide with a ceramic binder. The discs are fired at a temperature of 2000 °C and, therefore, can withstand high operating temperatures. The temperature coefficient of the non-linear resistance is equal and opposite to that of copper, so that besides its main function the non-linear resistance also acts as a temperature compensator. The non-linear resistance

Card 2/6

SOV/144-58-7-12/15

A Contactless Control Circuit for a Drive on the Generator-motor System

used in the manual control circuit that is described had the performance curve given in Fig 3; the resistance consisted of 7 discs in parallel. In the circuit diagram (Fig 1) the non-linear resistance is denoted by a rectangle with a curved diagonal. The circuit intended for manual control is provided with push-buttons for 'forward', 'reverse' and 'stop'. The circuit was tried out under laboratory conditions and full details are given about the machines and the controller used; thus the generator was type PN-290, of 230 V and 151 A. The method of operation of the circuit is described. Experimentally determined mechanical characteristics are given in Fig 5 for rated speed and for half rated speed. The operation of the circuit with manual control is then described, commencing with starting up the motor against no-load. If the voltage supply for the current coil of the electro-magnetic amplifier is taken only from additional active resistance in the main circuit, the power loss in this active resistance is excessive and, therefore, an attempt was made to replace part of it by

Card 3/6

SOV/144-58-7-12/15

A Contactless Control Circuit for a Drive on the Generator-motor System

the resistance of the interpole windings of the motor and generator. Oscillograms of starting, reversing and retarding the unloaded motor are given in Figs 6 and 7 for the two cases of purely ohmic additional resistance and combined resistance, respectively. In the first case the current has an initial peak which is absent in the second, presumably because of the inductance of the interpole windings so that the current/time curve is more nearly rectangular. The processes of stopping and reversing are then briefly considered and it is also shown that the characteristics of the circuit are such that creeping cannot occur in the 'stop' position. Operation of the system with automatic control is then considered. In this context automatic control means that the magnetic amplifier receives its signal from an automatic device that does not operate through the push-button contacts. For example, the signal may be received from a micrometer applied to the steel so as to correct the thickness if it is not right. In this case the signal must be applied through the magnetic

Card 4/6

SOV/144-58-7-12/15

A Contactless Control Circuit for a Drive on the Generator-motor System

amplifier, the power of which must be greater than in the case of manual control. In this case, the most suitable starting device is a magnetic relay - magnetic amplifier operating under relay conditions. Methods of designing such equipment are well known. Operation of the magnetic relay is improved by including a non-linear resistance in the general load circuit and including positive feed back. A characteristic curve of a magnetic relay with non-linear resistance is given in Fig 8. It is concluded that the use of magnetic amplifiers in control circuits of generator-motor drives permits the number of contacts in the circuit to be considerably reduced but without impairing its properties. The circuit should be further developed to avoid the use of contacts in controlling the motor speed.

The article is followed by a discussion about it by K.I. Kozhevnikov.

Card 5/6

SOV/144-58-7-12/15

A Contactless Control Circuit for a Drive on the Generator-motor System

There are 8 figures and 5 Soviet references.

ASSOCIATION: Kafedra elektrifikatsii promyshlennykh predpriyatiy Leningradskogo elektrotekhnicheskogo instituta (Chair for Electrification of Industrial Enterprises, Leningrad Electro-technical Institute)

SUBMITTED: May 4, 1958

Card 6/6

VINOGRADOV, I. P.

DECEASED 1955

see ILC

MEDICINE

OSOKIN, N.G.; RAZORENOV, A.A.; Prinimali uchastiye: BELONOGOV, F.F., laborant; VINOGRADOV, I.P., laborant

Machinability of nickel silver depending on its structural and chemical composition. Sbor. nauch. trud. GINTSVETMET no.33:364-368 '60. (MIRA 15:3)
(Nickel silver--Analysis) (Metal cutting)

VINOGRADOV, I.P., zasluzhennyy vrach RSFSR [deceased]; PEN'KEVICH, S.G., zasluzhennyy vrach RSFSR (Leningrad)

"Twenty-fifth of October Memorial Hospital" during the period of the blockade of Leningrad 1941-1944. Sov. zdrav. 21 no.2:53-57 '62. (MIRA 15:3)

(HOSPITALS)
(LENINGRAD--SIEGE, 1941-1944)

VINOGRADOV, I. S.

Conveying Machinery

Application of technical improvements., Podshipnik, No. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, April 1952 ~~1953~~. Unclassified.

VINOGRADOV, I.S.

Brief exposition of the angiosperm system [with summary in English]. Probl. bot. no.3:9-66 '58. (MIRA 11:7)

(Angiosperms)

VINOGRADOV, I.S.

TALANTOV, V.A., kandidat meditsinskikh nauk (Leningrad, Institutskaya ul., d.6); VINOGRADOV, I.S., laborant

Modifications of neural elements of the synovial membrane in tuberculous gonitis. Vest. khir. 74 no.6:41-44 S '54. (MLRA 7:10)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo instituta khirurgicheskogo tuberkuleza i kostno-sustavnykh zabolevaniy (dir. prof. P.G. Kornev)

(TUBERCULOSIS, OSTEOARTICULAR, pathology, knee synovial membrane innervation)
(SYNOVIAL MEMBRANE, innervation, pathol. in knee tuberc.)

VINOGRADOV, I.S.

In memory of Vladimir Fedorovich Razdorskii (1883-1955). Bot.zhur.41 no.6:915-924 Je '56. (MLRA 9:10)
(Razdorskii, Vladimir Fedorovich. 1883-1955)

VINOGRADOV, I.S.

For an accelerated production rate of new textile machinery. Tekst.prom. 22 no.10:20-23 O '62. (MIRA 15:11)

1. Direktor nauchno-issledovatel'skogo eksperimental'no-konstruktorskogo instituta pryadil'nykh mashin.
(Textile machinery)

VINOGRADOV, I.S.; ZHUKOVA, N.A.

On digenesis. Bot.zhur. 47 no.1:132-138 Ja '62. (MIRA 15:2)

1. Severo-Osetinskiy gosudarstvennyy pedagogicheskiy institut, Ordzhonikidze i Kabardino-Balkarskiy gosudarstvennyy universitet, g. Nal'chik.

(Plants--Reproduction)

VINOGRADOV, I.V.

Vibratory instrument for measuring stresses in cold rolled metal strips. Izv. vys. ucheb. zav.; prib. no.4:117-126 '58. (MIRA 12:7)

1. Leningradskiy elektrotekhnicheskiy institut im. V.I. Ul'yanova (Lenina).

(Strain gauges)

L 55020-65 EWT(d)/EWT(m)/EWP(w)/T-2/EWP(k)/EWA(h) Pf-4/Peb EM

ACCESSION NR: AP5015554 UR/0286/65/000/008/0098/0098
629.135/138

AUTHOR: Vinogradov, R. I.; Vinogradov, I. N. 19
B

TITLE: Automatic flapping wing. Class 62, No. 170305

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 98

TOPIC TAGS: flapping wing 7V, flapping wing glider, airframe component

ABSTRACT: An Author Certificate has been issued for an automatic flapping wing for gliders. It consists of a nose section outfitted with ribs, tail section, double-wall and auxiliary longerons, dovetailed blades flexibly mounted on the streamlined ribbing, and components for joining the wing to the fuselage. A servoactuator is mounted on the double-wall longeron for the purpose of maintaining the center of gravity of the oscillating wing frame at a point near the longeron axis, for increasing the dynamic properties of the wing and for assuring damping. This servoactuator is connected to a reducer and weight balance which produces the automatic oscillation

b

L 55020-65
ACCESSION NR: AP5015554

of the wing. The initial oscillating impulse is given by a pneumatic cylinder rod through a support disk fastened to the auxiliary longeron. The panel of the wing is hinged to the fuselage by a bracket connected with a horizontal damper and with a shock-absorber rod. [WH]

ASSOCIATION: none

SUBMITTED: 25Nov63

ENCL: 00

SUB CODE: AC

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4027

Gac
Card 2/2

168T31

VINOGRADOV, I. V.

USSR/Engineering - Shipbuilding Jan/Feb 47

"Method of Successive Approximations for Determination of the Main Elements of a Ship," I. V. Vinogradov, Cand Tech Sci

"Sudostroyeniye" No 1, pp 1-4

Discusses method to determine absolute error of calculated ship displacement. Evaluation of absolute error in initial stage of determining fundamental elements of ship permits consideration and classification of results of separate partial solutions quantitatively, but not formally as in textbooks.

168T31

FDD

VINOGRADOV, I. V. PA 29T99

[redacted]/Ships - Construction Jan/Feb 1947
Shipbuilding

"Method of Consecutive Approximations in the Determination of the Main Elements of Ships," I. V. Vinogradov, Candidate in Technical Sciences, 4 pp

"Sudostroyeniye" No 1

The author presents and discusses various formulas for determining the various data which are necessary before the plans for a ship are set forth in the final blueprint. Formulas are given for such items as displacement, speed, cruising range, cargo carrying capacity, and operational as well as tactical technical details.

BS

29T99

VINOGRADOV, I. V.

Vessels for polar voyages. Moskva, Glav. red. lit-ry po sudostroeniiu, 1946. 238 p. (49-25901)

VM451.V5

VINOGRADOV, I. S.

Machinery, Automatic

Application of technical improvements. Podshipnik No. 2, 1952.

9. **Monthly List of Russian Accessions**, Library of Congress, April 1952 1960. Unclassified.

VINOGRADOV, I. S.

Metal Cutting

Application of technical improvements. Podshipnik No. 2, 1952.

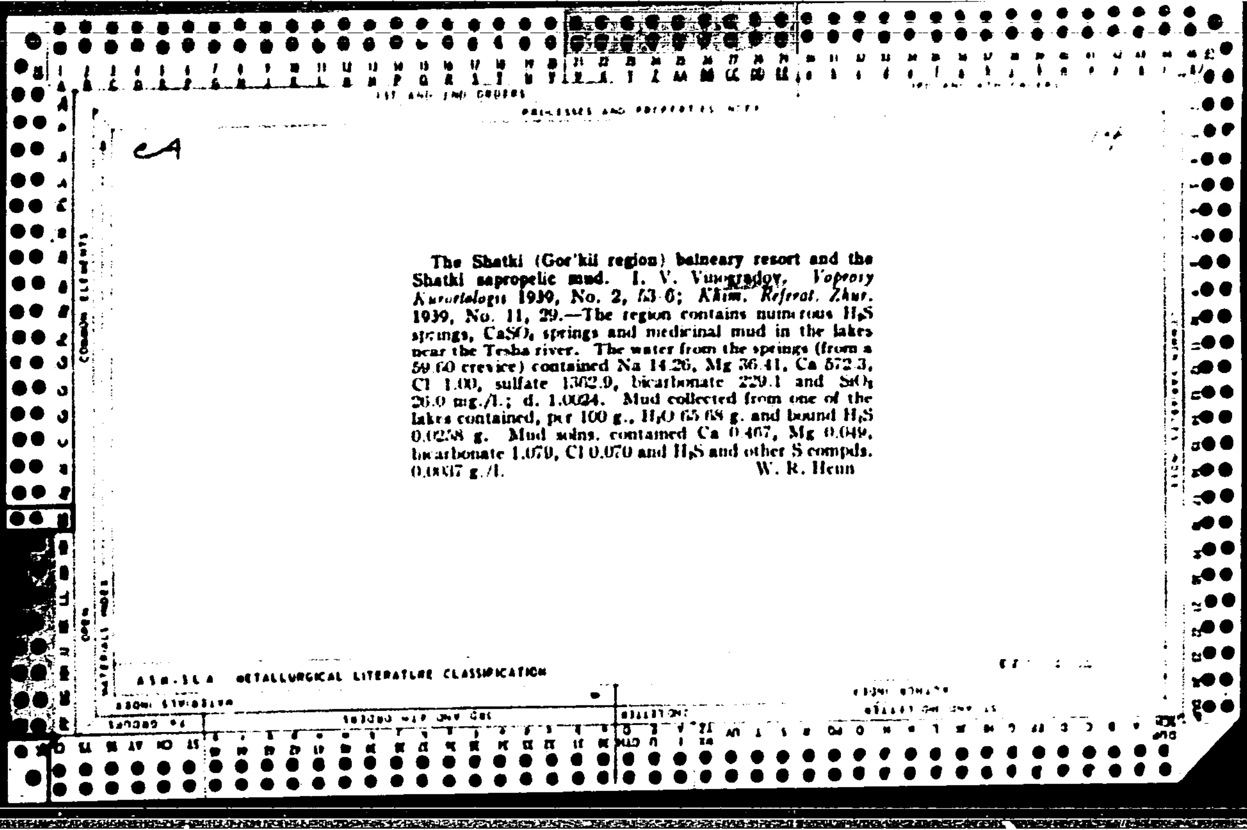
9. **Monthly List of Russian Accessions**, Library of Congress, April 1952 ~~1953.~~ Unclassified.

VINOGRADOV, I. S.

Bearings (Machinery)

Introduction of new methods at bearing factories. Podshipnik, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1952 ~~1953~~. Unclassified.



CA

The Shatki (Gor'kii region) balneary resort and the Shatki sapropelic mud. I. V. Vinogradov. *Voprosy Kurortologii* 1939, No. 2, 53-6; *Khim. Referat. Zhur.* 1939, No. 11, 29.—The region contains numerous H_2S springs, $CaSO_4$ springs and medicinal mud in the lakes near the Tesha river. The water from the springs (from a 59.60 crevice) contained Na 14.26, Mg 36.41, Ca 572.3, Cl 1.00, sulfate 1302.9, bicarbonate 229.1 and SiO_2 26.0 mg./l.; d. 1.0024. Mud collected from one of the lakes contained, per 100 g., H_2O 65.68 g. and bound H_2S 0.0258 g. Mud solns. contained Ca 0.467, Mg 0.049, bicarbonate 1.070, Cl 0.070 and H_2S and other S compds. 0.0807 g./l. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

YEFIMOV, Boris Aleksandrovich; MAN'KOV, Viktor Ivanovich; VINOGRADOV,
I.V., general-mayor, red.; YEMEL'YANOV, V.T., polkovnik, red.;
ANIKINA, R.F., tekhn.red.

[Squad on reconnaissance mission] Otdelenie v poiske. Moskva,
Voen.izd-vo M-va obor.SSSR, 1959. 60 p. (MIRA 13:3)
(Military reconnaissance)

VINOGRADOV, I.V., inzh.

Differential method of determining the economic indices of merchant ship operations. Sudostroenie 25 no.10:17-18 O '59.
(MIRA 13:2)

(Merchant ships--Cargo)

MASYAGIN, Aleksey Vasil'yevich; VINOGRADOV, I.V., redaktor; VOLCHOK, K.M., tekhnicheskiy redaktor.

[Calculation method in planning and designing ships] Raschetnyi metod proektirovaniia i konstruirovaniia sudov. Leningrad, Izd-vo "Rechnoi transport," Leningradskoe otd-nie, 1955. 135 p. (MLRA 8;8)
(Ship building)

VINOGRADOV, I.V., kand.tekhn.nauk

Providing for the load-carrying capacity of a vessel built of light alloys. Sudostroenie 28 no.8:4-7 Ag '62. (MIRA 15:8)
(Hulls (Naval architecture)) (Shipbuilding materials)

VINOGRADOV, I.V., kandidat tekhnicheskikh nauk.

Effect of density of lumber cargoes on the stability of a ship. Sudostroenie 22 no.11:1-4 N '56. (MLRA 10:2)

(Stability of ships) (Ships--Cargo)

VINOGRADOV, I.V.

"ICE - NAVIGATION SHIPS", Defence Publishing House of the NKAP Chief Publishing Office of Literature on Shipbuilding, MOSCOW 1946.

This book "Ice-NAVIGATION SHIPS" is a monograph, which gives a generalization of the material on ice-navigation ships and represents the first attempt at a critical elucidation of the experience of the planning and operation of them.

In the book, besides a short historical outline of the development of ice-navigation vessels, their classification, and the technology and organization of ice-navigation, an account is given of the operational - economic and ice qualities of ships - the form of the hull, the distribution of accommodation, the construction of the hull, the propulsive properties and the special equipment of ice-navigation ships.

The book will be useful not only for persons occupied in the disigning of ice-navigation ships, but also for students of shipbuilding, high technical schools (vtuz) and technical schools (tekhnikum).

So. Translation 9005547

VINOGRADOV, I.V., kand.tekhn.nauk

Ways of improving the technical and economic indices of cargo ships. Sudostroenie 29 no.3:16-18 Mr '63. (MIRA 16:4)
(Freighters--Design and construction)
(Merchant marine--Cost of operation)

VINOGRADOV, I. V.

Transport organization

Suda ledovogo plavaniya. Moscow, Oborongis NKAP: Glavnaya Redaktsiya Literatury po Stoitel'stvu i Arkhitekture, 1952. pp. 12; 22x15.

LXIII-2

VINOGRADOV, I.V.

The type of the oil fuel ships for navigation in the ice conditions. Sudestroenic. (The Shipbuilding) No. 4. 1937.

VINOGRADOV, I.V.

Ships fitted for Arctic navigation. The Defense Publishing House, 1946.

MASYAGIN, Aleksey Vasil'yevich; VINOGRADOV, I.V., redaktor; VOLCHOK, K.M., tekhnicheskiy redaktor;

[Reinforcement and repair of vessels for inland water transportation]
Podkrepleniia i remont rechnykh sudov. Leningrad, Izd-vo "Rechnoi
transport", Leningradskoe otd-nie, 1956. 159 p. [Microfilm] (MLRA 9:6)
(Ships--Maintenance and repair)

GAZARYAN,G.A.; YEFIMOV,B.A.; MAN'KOV,V.I.; PETROV,D.N.; VINOGRADOV, I.V., general-mayor, red.; YEMEL'YANOV,V.T.,polkovnik, red.; KRASAVINA,A.M., tekhn.red.

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